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Ownership Change and Timber Supply on Nonindustrial Private Forest Land

Eugene M. Carpenter

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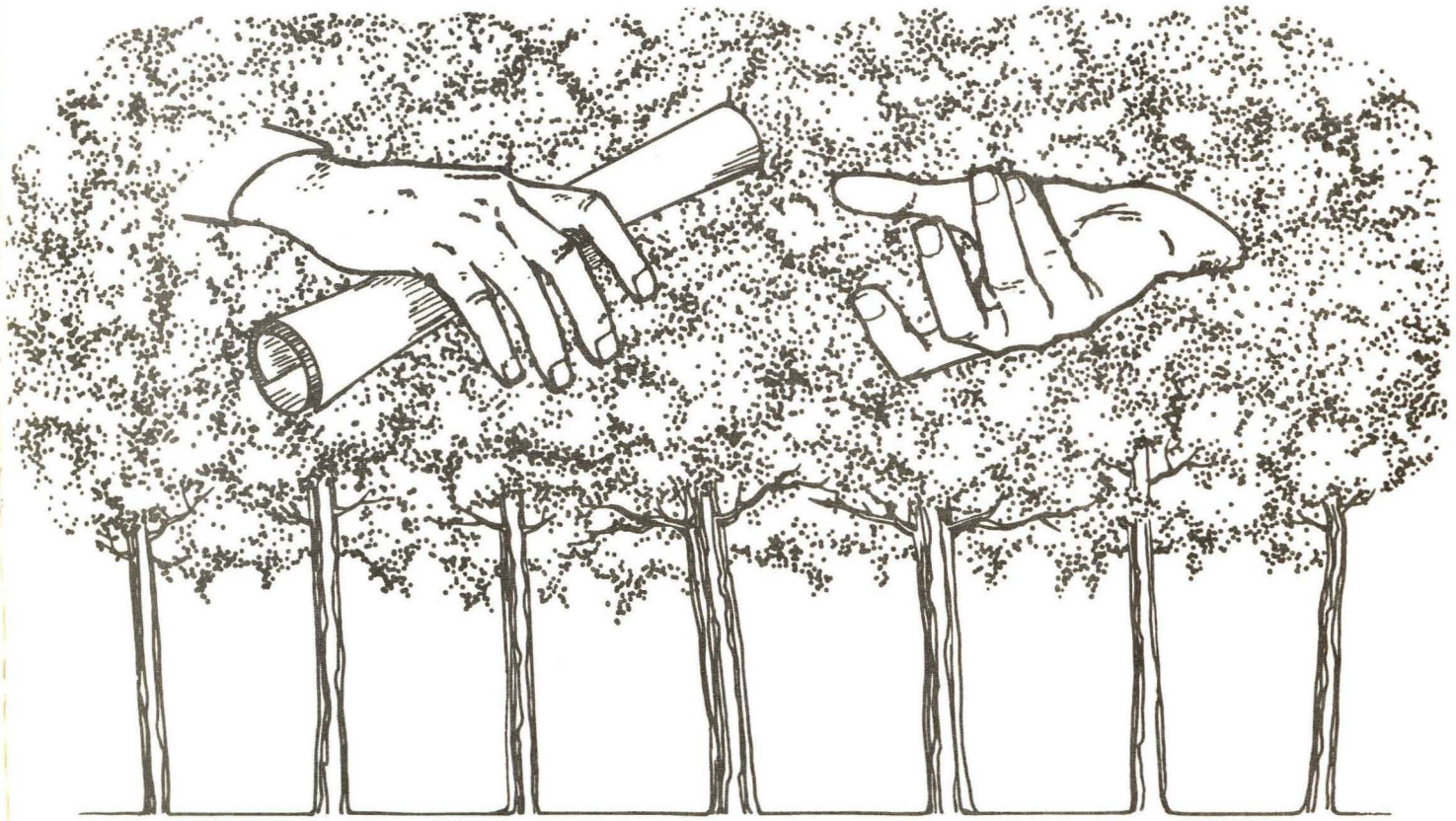

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OWNERSHIP CHANGE AND TIMBER SUPPLY ON NONINDUSTRIAL PRIVATE LAND

Eugene M. Carpenter, *Market Analyst*
Duluth, Minnesota

BACKGROUND

In the mid-1960's, Robert Stone described a seeming contradiction about private forest landowners as timber suppliers (Stone 1970). In reviewing 25 studies of nonindustrial private forest landowners (NIPFL's), he found that most researchers characterized these owners as having little interest in growing or supplying timber as a commercial enterprise. Consistently, one-quarter to one-third or more of NIPFL respondents indicated they would not harvest their timber. However, Stone also found in forest survey statistics that farmers and miscellaneous private owners provided a share of timber harvest and an amount cut per acre, annually, not much different from that harvested on public and industrial forests. Although small private forest holdings had slightly below average stocking and growth, consistent with a lack of conscious management effort, they actually harvested a proportionately larger amount of their volume and growth than did the other owner classes.

Concern about timber supply from NIPFL land is well founded bacause these owners control 58 percent of all commercial timberland in the United States and slightly more than 70 percent in the East (USDA 1978). Studies consistently find that a large proportion of private forest landowners say they will not harvest their timber. Also there is a perception that this land is being divided into smaller, less desirable, timber production units. Further, there is concern that nonresident owners are gaining control of a larger proportion of the commerical forest acreage pimarily for recreation or other nontimber uses.

We set out to determine what happened, over time, to an initial set of forest properties, to note what changes have occurred, and to examine how change may have affected timber supply and owner and property characteristics. We had a unique opportunity to take a third look at previously studied properties in Michigan's Upper Peninsula.

In 1960, Dean Quinney interviewed a sample of 197 private forest landowners in Michigan's Upper Peninsula to determine owner and property characteristics, to identify owner objectives and attitudes toward forest management and timber harvesting, and to evaluate how these forest properties might contribute to future timber supply and economic development of the area (Quinney 1962).

In 1967, Stone identified and interviewed the current owners of the land included in the 1960 study to compare landowner intentions expressed in 1960 with owner actions during the intervening 7 years. He found the proportion of owners holding certain attitudes, objectives, and intentions was reasonably consistent over time in the Upper Peninsula and consistent with findings of studies in other areas. However, some owners of the study land had taken actions different from previously stated intentions. Either the same owners had changed their minds or different owners held different attitudes and objectives. Thus, while the proportion of owners planning to harvest timber, or having positive or negative attitudes about harvesting or other management activities, may be fixed at any particular time, these are momentary snapshots of the situation. Stone postulated that relative to timber harvesting, these private owners operate in an economically rational manner as indicated by forest survey statistics. They attempt to keep their investment in timber capital low to satisfy their high time preference for money, and many will harvest timber as it becomes marketable. Timber growth does proceed regardless of forest management intensity. Eventually, an owner becomes aware of the timber value and conducts a timber harvest, perhaps contrary to a previously held intention. Consequently, over time, particularly as long as a forest management rotation period, these dynamic forces would probably make most private timber available for harvest.

In his analysis of the period from 1960 to 1967, Stone reported that the number of owners holding some of the original forest acres had increased by 19

percent—from 197 to 235 owners. Three original properties, containing 90 acres of forest, had been platted and subdivided and were dropped from his study. Also, it was not possible to interview 10 owners in 1967[1]. This left 222 respondents with some of the original forest land. Forty-six percent were different owners in 1967. There were 19 more nonresident respondents and 6 more resident respondents. Thirty-three original properties had partially or completely changed in residence status with the net effect of shifting 639 original resident-held forest acres (3 percent) to nonresident owners. The average size of these new, nonresident forest holdings was larger (88 acres) than the original resident properties (72 acres) or the residual resident holdings (44 acres) (fig. 1). When nonresident holdings shifted to resident status, the average size decreased by about 11 forest acres (fig. 2).

[1]*The owners of these properties were identified and mailed a questionnaire in 1979.*

OUR STUDY

Current Owners

In 1979, we updated the owner list of the original 1960 study land and mailed each owner a questionnaire[2]. To be included in our 1979 study, a person had to own some portion of the 1960 land base.

We identified 293 separately owned properties in 1979 that included land from the original 1960 descriptions[3]. This compares with 197 properties in 1960 and 232 in 1967. In 1979, the State of Michigan owned two of the 1967 properties (78 forested acres) and a large mining company had purchased two

[2]*Copies of questionnaire are available from: Publications, USDA Forest Service, 1992 Folwell Avenue, St. Paul, MN 55108.*

[3]*One additional property involving 20 forested acres had been platted and subdivided since 1967 and the owners were not determined in 1979.*

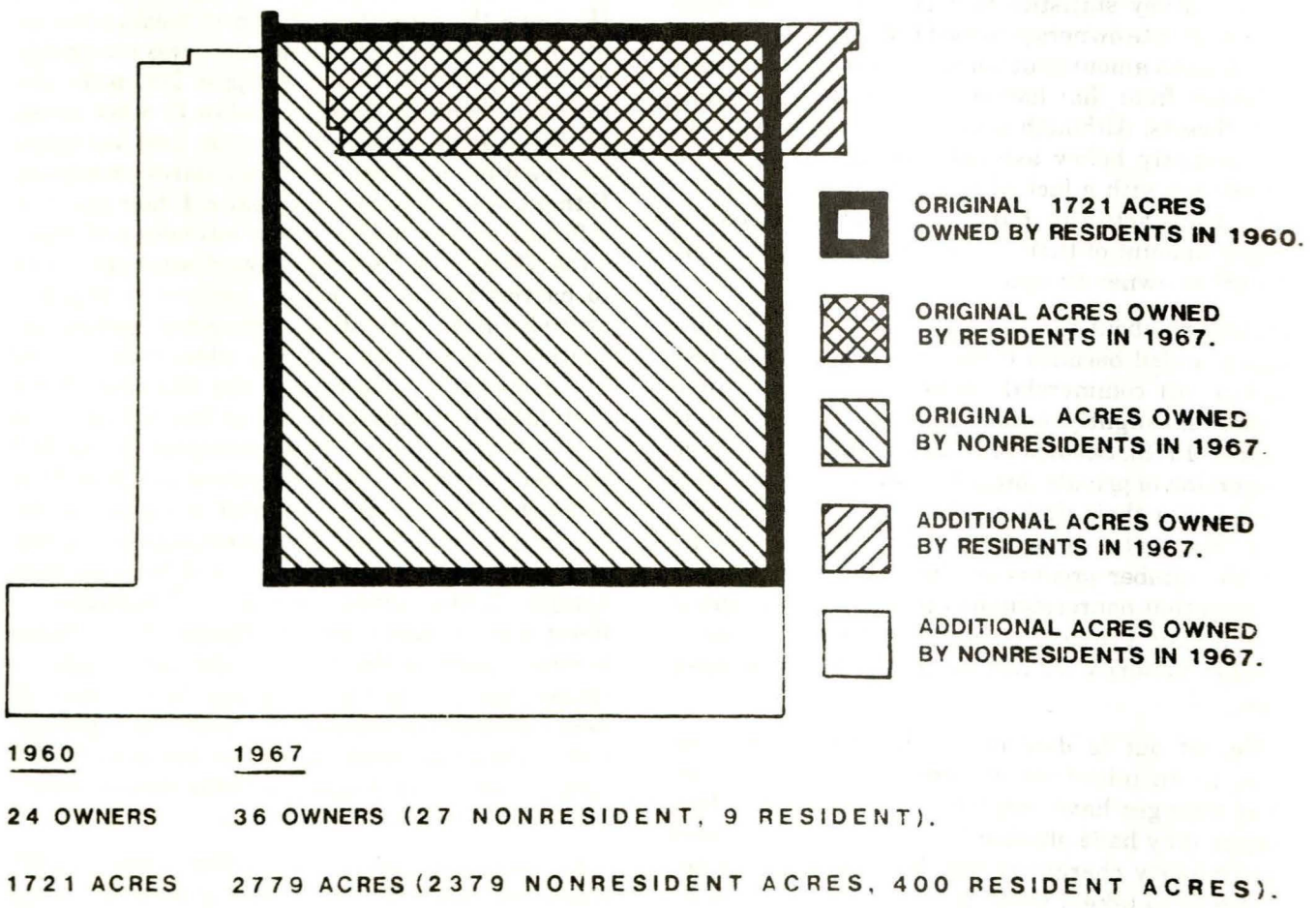
ORIGINAL 1721 ACRES OWNED BY RESIDENTS IN 1960.
ORIGINAL ACRES OWNED BY RESIDENTS IN 1967.
ORIGINAL ACRES OWNED BY NONRESIDENTS IN 1967.
ADDITIONAL ACRES OWNED BY RESIDENTS IN 1967.
ADDITIONAL ACRES OWNED BY NONRESIDENTS IN 1967.
1960
1967
24 OWNERS
36 OWNERS (27 NONRESIDENT, 9 RESIDENT).
1721 ACRES
2779 ACRES (2379 NONRESIDENT ACRES, 400 RESIDENT ACRES).

Figure 1.—*Changes from resident ownership 1960 to 1967.*

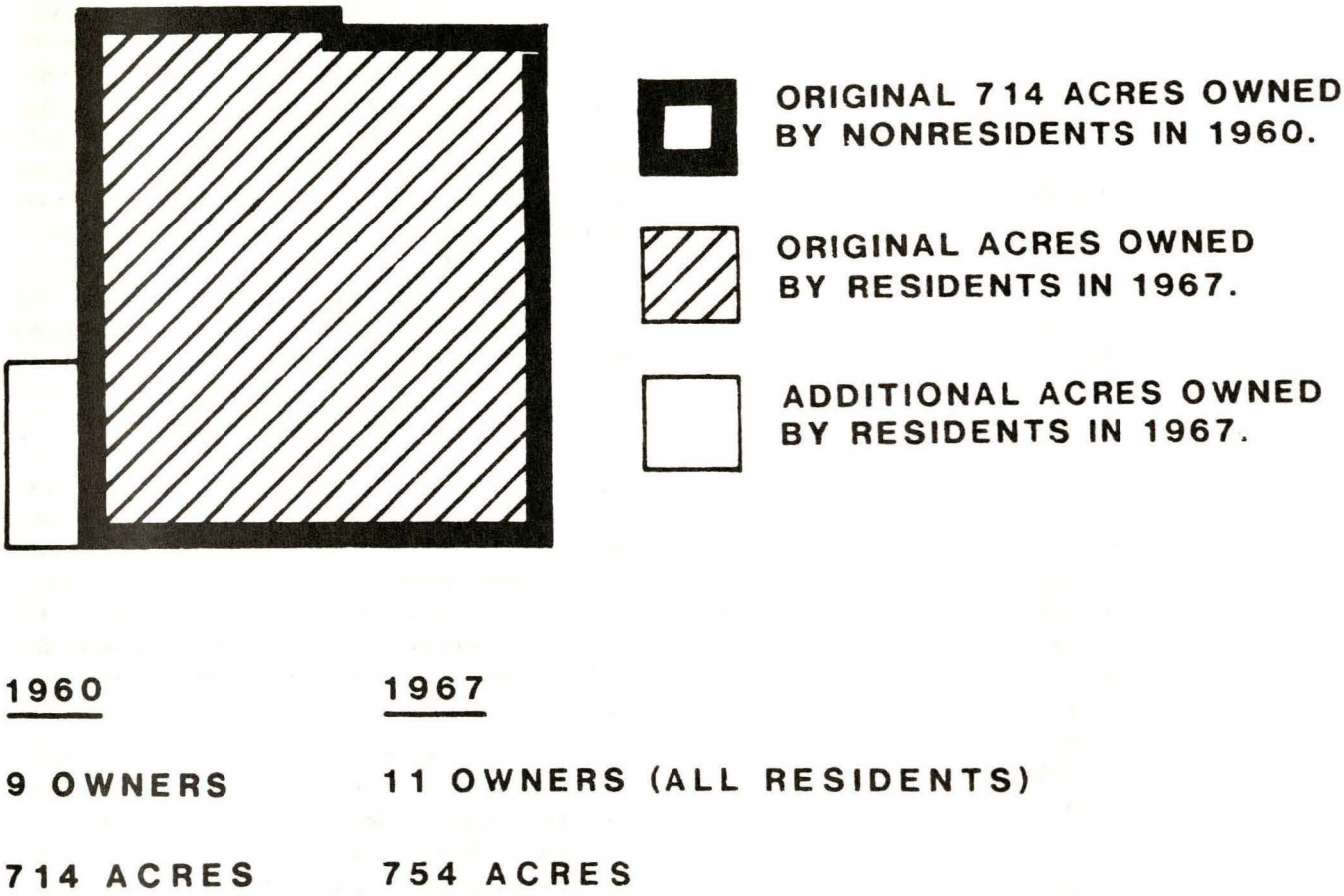

Figure 2.—*Changes from nonresident ownership 1960 to 1967.*

others (182 forested acres). These two owners, holding 0.9 percent of the 1967 acres (4 ownerships, 260 acres), were dropped from our analysis, leaving 291 separate properties. Of these, 20 respondents reported owning no forested acreage in 1979. Some of these owners may have purchased a nonforest portion of a 1960 tract or a small houselot that they did not consider to be forest land. Thus, we found that 271 owners held 37,211 forested acres in 1979, for an increase of 37 percent and 83 percent, respectively, since 1960 (table 1). Each owned some of the 1960 forest property.

Distribution by Tenure and Residency

In 1979, 38 percent of the 1960 owners still owned some of the original forest land. They represent 34 percent of the 1967 owners and 28 percent of the 1979 owners. Twenty-nine percent of the 1960 properties were still intact under the same owner, representing 26 percent of the 1967 owners and 21 percent of the 1979 owners. From 1967 to 1979, resident properties increased by 16 percent, nonresident increased by 40 percent. Thus, the trend towards increasing nonresident ownership continued from 1967. There were 89 different resident owners and 60 different nonresident owners.

Where new owners were involved in 1979:

- Seventy-five different resident owners had forest land formerly owned by a resident.
- Twenty-seven different nonresident owners had property formerly owned by a nonresident.
- Fourteen properties formerly in nonresident status shifted, at least in part, to resident status.
- Thirty-three properties formerly in resident status shifted to nonresident.

Forty-six percent of the 1967 owners were different from those in 1960; 55 percent of the 1979 owners were different from those in 1967. Seventy-two percent of 1979 owners were different from those in 1960. This tremendous turnover in owners highlights the dynamic nature of forest land ownership.

Further analysis showed that about 25 percent of the respondents who obtained a portion of the 1960 base acres after 1967 reported first acquiring woodland before 1967, which indicates they added to an existing forest base. More important, perhaps, is the indication that a large proportion of the different

owners had *not* owned woodland before. This highlights the never-ending task facing Extension Service and State forestry personnel responsible for educating and encouraging owners in the practice of proper forest management.

Some Properties Larger, Some Smaller

The number of forest acres owned has been demonstrated to be an important variable relative to owner interest in timber harvest and forest management (Webster and Stoltenberg 1959). When the same owner owns all or even part of a property in 1979, that property is twice as likely to contain the same forest acreage as in 1967 than when different owners are involved—40 percent vs. 21 percent (table 2). Even so, only 40 percent of the same owners were found to have the same amount of forested acreage in the two periods. Consequently, stability of tenure does not necessarily mean stability of forest ownership, although it tends to. A different owner is far more likely to report reduced acreage than is the same owner—59 percent vs. 39 percent. On the other hand, the proportion reporting increased forest acres is about the same for the two owner classes—19 percent vs. 21 percent.

For those properties that have the same owner and are now smaller and less than 50 acres, 62 percent were less than 50 acres in 1967 (table 3). Of those properties with different owners, only 37 percent were already less than 50 acres.

We did not find that resident or nonresident status had much influence on change in size class of holding. Resident holdings were as apt to be smaller in 1979 compared to 1967 as were nonresident holdings. Actually, a higher proportion of properties with the same resident owner were reported to have less forest acreage than when the same nonresident retained an interest. Properties with different owners exhibited similar tendencies. It would seem then, that nonresident ownership does not necessarily lead to increased division of forest properties.

For both resident and nonresident properties, we saw significant increases in the number in the under 35-acre size classes (table 4). Beyond this, the nonresident situation has not changed much except for the addition of one large property. However, for residents, there seems to be a decrease in the intermediate-size forest holdings and a significant increase in the 150- to 599-acre class as well as in the smaller size classes.

Finally, though the number of small properties has increased substantially, the proportion of acreage in larger holdings has been maintained. Large tracts tend to be cheaper to treat per acre. The enlargement of some properties may offset the division of others to allow the delivery of forestry expertise at a reasonable cost. In this way, a high level of management can be provided on an adequate acreage to supply enough timber to maintain a stable real price for forest products. If foresters were to focus their efforts on the larger forest holdings, the stability in this class, especially of nonresident owners, may favor intensive forest management investment.

Division and Augmentation

There were 178 undivided properties in 1979—that is, the entire 1967 area was controlled by only one owner in 1979, not necessarily the same person. Five of these reported having no forested acreage; two of the five had less than 10 acres of forest in 1967, three were between 40 and 60 acres. Also, four 1967 ownerships were consolidated into two ownerships by 1979.

Forty of the 1967 properties were divided and had more than one owner by 1979. By then, 113 holdings had a portion of the original 1967 acreage, but 15 of these reported having no forested acreage. However, only one complete 1967 property had two new owners both reporting no forest acreage. Also only 24 (11 percent) of the 1967 properties were divided where all the new forested holdings were less than the original size.

One hundred seventy-three (64 percent) of the 1979 forest holdings were undivided 1967 properties:

- Seventy-three had the same forest acreage.
- Fifty-six had less forest acreage.
- Forty-four had more forest acreage.

Ninety-eight (36 percent) of the 1979 forest holdings were divided 1967 properties:

- One had the same forest acreage.
- Eighty-three had less forest acreage.
- Fourteen had more forest acreage.

For the undivided holdings, most that were smaller changed less than 20 acres, most that increased changed by more than 50 acres (table 5). However, much of the change in acres owned was a muddling within a size class and not many large, undivided holdings were reported to be much smaller units in 1979. Not many of the smaller properties became much larger either through purchase, reforestation, or natural growth. Many of those that added 50 or more acres were fairly large to begin with.

To summarize, in this dynamic arena of land exchange it appears that a fixed land base is continually divided among more and more owners. But, both division and augmentation take place in a confounding manner. To supply professional service to the original study acreage, many more owners would have to be contacted. If this were done, however, a much larger amount of land would be serviced. Because there is a larger proportion of tracts in the less than 35-acre size class and a decrease in the proportion in the 35- to 150-acre class, we may expect higher forestry servicing costs per acre. In the face of these shifts, it is comforting that some tracts become part of larger properties. The confounding part is that simple statistics tell us little. For example, average size of holding continues to increase. However, even though there were many more smaller holdings in 1979, not much of the change was caused by drastic shifts from a larger to a smaller size. There are more properties, and much more acreage, in holdings of 150 acres or over in 1979 compared to 1967. And, the proportion of the 1979 acreage in large ownerships has not been diminished through division or change. These trends suggest stable forestry servicing costs.

TIMBER HARVEST ATTITUDES

A major concern about NIPFL owners is their attitude or intentions about harvesting timber. It has been demonstrated that at any particular time a rather consistent proportion of owners indicate they will not harvest their timber. In 1967, Stone found that individual owners were not consistent in intentions over time; and he hyphothesized that most of the timber on nonindustrial private forests would probably be available for harvest for one reason or another. Our study confirms this inconsistency in attitude and action.

1967 Attitudes

From our analyses of the original interview schedules completed in 1967, we estimated 65 percent of the owners controlling 78 percent of the acres did not oppose timber harvests. Seventy percent of the residents were not opposed to timber harvest, but only 50 percent of the nonresidents felt this way. Thus, 35 percent of the owners controlling 22 percent of the acres, said they would not harvest their timber. Seven percent of the residents and 8 percent of the nonresidents would not harvest because the owner was incapacitated or the land was in an inactive status.

1979 Attitudes

In 1979, we asked owners if they planned to harvest in the next 10 years, sometime in the future, or never; we also asked if they had cut timber since 1967. About two-thirds of our 1979 respondents indicated they were not opposed to harvesting timber; 33 percent, controlling about 16 percent of the forest acreage, were opposed. These results are similar to those found in the 1967 survey and in many other nonindustrial landowner studies. These proportions held for both resident and nonresident owners.

Changing Attitudes

For many properties, the attitude of the owner toward timber harvest was different from that in 1967 (table 6). Where a different owner was involved, we contrasted the position of the former property owner with that of the current owner.

Thirty-five percent of the responding 1979 resident owners had a change in attitude about timber harvest. Of these, 43 percent changed to positive and 57 percent changed to a negative attitude. For those with a positive attitude now, half were different resident owners of property previously owned by a resident. For those with a negative attitude, 37 percent were the same 1967 owners.

Quite a different pattern is shown by nonresident owners. Forty-five percent had a change in attitude. However, 60 percent of the shifts were to a positive attitude. This change was evenly divided between different owners of property formerly held by nonresidents and different nonresidents who had obtained property from a 1967 resident owner. These responses show that when resident-held property shifts to nonresident status, the timber is still probably available for harvest.

Harvest Actions

Attitudes or intentions are one thing, positive actions are something else. Not all expressed intentions are a whimsy of the moment. As indicated by reasons given for not harvesting, when owners record their harvest plans they probably consider the size, quality or amount of timber they have available, their current use of the land, the size of the property, and perhaps proximity of the timber to a home or a cabin. Some owners, when asked to make a hypothetical decision about timber harvesting, may be concerned about slash or may believe that appearance of an area would be drastically changed by logging.

But what has actually happened? We found that 11 ownerships with definite negative harvest attitudes in 1967 had harvested timber by 1979. Of the 11 properties, only two had the same owners in 1979 as in 1967. Five said they had cut because they needed the money. In addition, three inactive ownerships whose owners indicated their timber was unavailable in 1967 had new owners by 1979 who had harvested. Quite obviously, from this sample, different owners are an overwhelming factor as timber cutting prospects. I feel this confirms Stone's perception of timber supply from NIPF ownerships. At one time or another, most timber on these ownerships will be available, and the portion unavailable over a long time period is much smaller than many believe it to be. This has important implications for estimates of national timber supply from NIPFL holdings, and is especially important in assessing timber availability over the long run for industrial development projects being considered by forest industry firms.

Improvement Cut Attitudes

In 1979, we asked owners about their interest in a whole-tree thinning where skidding and chipping would remove the entire tree and leave a slash-free residual stand, as well as generally improve the wildlife habitat, timber quality, and growth. The most interesting contrast in attitudes involves nonresidents. A whopping 63 percent of the nonresident owners holding negative attitudes towards timber harvest said they would consider a whole-tree thinning. Only 21 percent said they would not consider any kind of cut, and 16 percent did not answer the question. Thus, slash or esthetics is an important deterrent to harvesting. Resident owners held a quite different attitude towards an improvement cut. Of those owners opposed to timber cutting, only 23 percent showed an interest in whole-tree thinning; 70 percent did not. Seven percent did not answer the question.

An additional contrast between residents and nonresidents shows that, of those having positive harvest attitudes, 70 percent of the residents and 87 percent of nonresidents would be interested in the whole-tree thinning concept. Thus, while a majority of both groups expressed at least an interest in the concept, proportionately more of the nonresidents did. These data suggest that the shift of property to nonresident status may not preclude commercial timber production as many foresters perceive, even though nonresidents may be most concerned about non-consumption forest uses. Many of those with a positive response toward improvement thinning might have been motivated to improve wildlife habitat or wood lot appearance.

OTHER OWNER ATTITUDES

Reason for Owning Forest Land

Reasons for owning forest land are reasonably consistent for the three study periods (table 7). This pattern, again, seems to follow that of many landowner studies. The proportion of owners holding a particular attitude changes little. But, the primary reason for owning may change for a specific owner or property.

In 1979, resident owners more often cited recreation as an important reason for owning forest land than they did in the past. It may be that recreation replaced the more mundane "residence" as a reason. However, this shift to recreation did not seem to influence the residents' attitude toward timber harvest, which remained consistent from 1967 to 1979. The increase in the proportion of both resident and nonresident owners who said farm or domestic use of timber was important may reflect their increased use of firewood.

Owners with Changed Attitudes

Fifty-eight of the 1967 properties were held by 70 owners in 1979 that gave a different principle reason for holding their woodland than owners of the same property had given in 1967. Of these 70 owners, 46 were different owners and 24 were the same owners as in 1967. Thus, while change in attitude may often be attributed to different owners, a significant number of owners change their outlook over time.

When we considered only properties where a change in attitude was documented, we found that, for resident owners, recreation and home use of products accounted for major increases (table 8). Not many owners changed to favor timber production. Recognize, for example, that properties whose nonresident owners said recreation was most important in 1967 (42 percent) had owners in 1979 with a different reason for owning even though the proportion citing recreation was about the same in both years. This table simply confirms that while many properties have owners that now say recreation is the most important reason for owning, a significant proportion have shifted from recreation to a different reason.

Recreation has become a more important reason for owning forest land. Forty percent of this change to recreation came from properties whose owner listed "part of residence" as the primary reason for owning forest land in 1967, 21 percent came from the "investment" category, 18 percent each came from "timber" and "inactive," and 4 percent came from "farm or domestic use." New owners account for the

overwhelming portion of this shift to recreation. For those properties shifting from recreation in 1967 to a new reason for owning category in 1979, we found that 65 percent had new owners and 45 percent had changed from a nonresident owner to a resident owner.

Of those ownerships that had changed from timber production as most important in 1967, 62 percent shifted to recreation, most had different resident owners. Only four ownerships shifted to timber production as the most important reason in 1979, two came from recreation.

Reasons for Harvesting

Residents consistently cite mature timber and the need for money as important reasons for harvesting timber (table 9). However, in 1979, thinning, salvage and own use of the wood increased as reasons, possibly because of the emphasis on cutting firewood to supplement or replace fossil fuel. In 1960 and 1967, several individuals harvested to provide wages for themselves or family members, but this was not listed as an option in 1979. Not many nonresidents harvested timber between 1967 and 1979.

Reasons for Not Harvesting

Main reasons given for not harvesting were immature timber, small volume or small area, with esthetics and scenery also important for both residents and nonresidents (table 10). Again, the reason given as most important changes with properties and owners over time. Saving for own use has increased as a reason for not selling timber and is probably influenced by the high cost of fossil fuel.

OWNER CHARACTERISTICS

Age

Age is a variable often used in NIPFL studies to predict attitude or performance relative to forestry projects. Age distribution shows an increase in the 25- to 44-year age class from 1960 to 1967 for both residents and nonresidents, but both classes were nearer to the 1960 level again in 1979 (table 11). The percent of nonresidents in the 65 and over class dropped somewhat from 1960 to 1967 but increased again by 1979. Generally the 1979 levels were closer to the 1960 proportion. Nonresident owners were slightly younger, on the average, than resident owners in all study years. Younger resident owners generally owned smaller forested tracts than older owners (table 12).

Occupation

Occupation trends showed slightly fewer farmers in 1979 (table 13). Resident professional and executive owners increased slightly, but nonresidents decreased a bit. Both resident and nonresident wage earners continued to increase as they had in 1967. The proportion of retired residents was stable for all three periods, but nonresident retirees doubled from 1967 to 1979.

Professional/executives and farmers owned larger tracts than those in other occupations on the average, but resident wage earners and retirees were well represented in the 75- to 149-acre size class.

SUMMARY

Information from three time periods gives some insight into how a land base in Michigan's Upper Peninsula has been divided and augmented over time and how private forest landowners react to timber harvesting opportunities. There has been a concern that owners, especially nonresidents, may have non-timber objectives for forest land ownership that could influence the availability of timber for harvest, and that division of holdings will lead to the development of non-economic-sized forest tracts. Our study confirms that while the proportion of owners favoring or opposing timber harvest is reasonably consistent at any particular time, it is not the same timber tracts for which owners hold a particular view. New owners hold different attitudes or the same owners have changed their attitude as their circumstances or perceptions change. In this case, it seems that resident owners were more important than nonresidents in shifting ownership emphasis to recreation as a reason for owning timberland.

The stable proportion of ownerships in the larger size classes and the shifting attitudes and actions of owners relative to timber harvesting indicate that a significant acreage may be continuously available for efficient management. The increase in the number of smaller properties was not a result of drastic change from larger to smaller tracts.

The increasing proportion of nonresident owners, while not necessarily as ominous from the timber harvesting standpoint as some have perceived, certainly means management agencies may need to shift their contact methods to accommodate this change.

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Table 1.—*Number of owners, acres of forest land owned, and average size of holding by size class, residency status and year*

Size class (acres)		Resident			Nonresident			Total					
								1960		1967		1979	
		1960	1967	1979	1960	1967	1979	Number	Percent	Number	Percent	Number	Percent
1–9	No.	7	6	27	3	4	9	10	5.1	10	4.5	36	13.3
	Acres	37	30	128	24	32	57	61	.3	62	.2	185	.5
	Ave.	5	5	5	8	8	6	6		6		5	
10–34	No.	30	29	48	9	11	27	39	19.8	40	18.0	75	27.7
	Acres	649	588	908	176	206	531	825	4.0	794	2.7	1,439	3.9
	Ave.	22	20	19	19	19	20	21		20		19	
35–74	No.	59	59	44	15	21	24	74	37.5	80	36.0	68	25.1
	Acres	2,753	2,831	2,053	626	943	1,071	3,479	16.6	3,774	12.7	3,124	8.4
	Ave.	48	48	47	44	45	45	47		47		36	
75–149	No.	41	43	31	8	14	12	49	24.9	57	25.7	43	15.8
	Acres	4,168	4,204	3,062	754	1,312	1,233	4,940	24.3	5,516	18.6	4,295	11.5
	Ave.	102	98	99	91	94	103	101		97		100	
150–599	No.	21	23	36	2	6	6	23	11.7	29	13.1	42	15.5
	Acres	4,625	5,418	9,689	448	1,338	1,497	5,073	24.9	6,756	22.8	11,186	30.1
	Ave.	220	236	269	224	223	250	221		233		266	
600+	No.	1	5	5	1	1	2	2	1.0	6	2.7	7	2.6
	Acres	4,060	10,750	10,542	2,000	2,040	6,440	6,060	29.8	12,790	43.1	16,982	45.6
	Ave.	4,060	2,150	2,108	2,000	2,040	3,220	3,030		2,132		2,426	
Total	No.	159	165	191	38	57	80	197	100.0	222	100.0	271	100.0
	Acres	16,310	23,821	26,382	4,028	5,871	10,829	20,338	100.0	29,692	100.0	37,211	100.0
	Ave.	102	144	138	106	103	135	103		133		137	

Table 2.—*Number of owners by residency status, tenure, and comparative size of holding, 1967–1979*

Owner status[1]	Number of owners		Size of holding in 1979					
			Larger		Same		Smaller	
	1967	1979	Number	Percent	Number	Percent	Number	Percent
Different owners								
R-R	50	75	15	20	14	19	46	61
N-N	22	27	4	15	8	30	15	55
N-R	11	14	2	14	3	21	9	64
R-N	31	33	8	24	7	21	18	55
Total	114	149	29	19	32	21	88	59
Same owners								
R	94	94	22	23	35	37	37	40
N	18	18	2	11	13	72	3	17
N-R	8	8	2	25	1	12	5	63
R-N	2	2	—	—	—	—	2	100
Total	122	122	26	21	49	40	47	39
All owners	236[2]	271	55	20	81	30	35	50

[1]R = Resident N = Nonresident.
[2]Of the 1967 owners, 14 retained part of a sudivided property, 12 were residents, 2 were nonresidents.

Table 3.—*Distribution of properties that were smaller in 1979 than in 1967 by current size class, residency status, and tenure*

Owner status[1]	Current size class									
	Total		< 50 acres		50–99 Acres		100+ Acres		50 acres in 1967[2]	
	Number	*Percent*	*Number*	*Percent*	*Number*	*Percent*	*Number*	*Percent*	*Number*	*Percent*
Different owners										
R-R	46	100	40	87	4	9	2	4	9	22
N-N	15	100	14	93	1	7	–	–	8	57
N-R	9	100	8	89	1	11	–	–	6	75
R-N	18	100	14	78	2	11	2	1	5	36
Total	88	100	76	86	8	9	4	5	28	37
Same owners										
R	37	100	20	54	8	22	9	24	13	65
N	3	100	3	100	–	–	–	–	2	67
N-R	5	100	5	100	–	–	–	–	3	60
R-N	2	100	1	50	–	–	–	–	–	–
Total	47	100	29	62	9	19	0	19	18	62
All owners	135	100	105	78	17	12	13	10	46	44

[1]R = Resident N = Nonresident.
[2]Column show percent of ownership currently less than 50 acres.

Table 4.—*Number of owners and acres of commercial forest land owned by size class and residency, 1967 and 1979*

Size class	Resident				Nonresident			
	1967		1979		1967		1979	
	Number	*Percent*	*Number*	*Percent*	*Number*	*Percent*	*Number*	*Percent*
OWNERS								
1–9	6	3	27	14	4	7	9	11
10–34	29	18	48	25	11	19	27	34
35–74	59	36	44	23	21	37	24	30
75–149	43	26	31	16	14	25	12	15
150–599	23	14	36	19	6	10	6	8
600+	5	3	5	3	1	2	2	2
Total	65	100	191	100	57	100	80	100
ACRES								
1–9	30	([1])	128	([1])	32	([1])	57	1
10–34	588	2	908	3	206	4	531	5
35–74	2,831	12	2,053	8	943	16	1,071	10
75–149	4,204	18	3,062	11	1,312	22	1,233	11
150–599	5,418	23	9,689	38	1,338	23	1,497	14
600+	10,750	45	10,542	40	2,040	35	6,440	59
Total	23,821	100	26,382	100	5,871	100	10,829	100

[1]Less than 0.5 percent.

Table 5.—*Distribution of the undivided properties by amount and direction of change from 1967 to 1979*

(In percent of ownerships)

Direction of change	Amount property increased or decreased (acres)							
	< 10	11–19	20–29	30–39	40–49	50–99	100+	Total
Decrease	14	18	7	5	3	6	3	56
Increase	9	7	4	1	1	9	13	44
Total	23	25	11	6	4	15	16	100

Table 6.—*Distribution of owners response to timber harvest attitude by residency status and change since 1967*

(In percent of owners)

Owner response	Resident	Nonresident	All owners
Changed attitude	35	45	38
To positive	43	60	18
To negative	57	40	19
No change	65	55	62
Positive	81	71	48
Negative	19	29	14
All owners	100	100	100
Positive	68	66	67
Negative	32	34	33

Table 7. *Primary reason owners hold forest land by residency status and study date*

(In percent of owners)

Reason for owning	Resident			Nonresident		
	1960	1967	1979	1960	1967	1979
Domestic or farm use	17	16	22	5	3	8
Part of residence	33	26	20	0	3	3
Investment	12	12	9	21	16	22
Recreation use	23	31	40	66	57	58
Timber production	4	10	6	0	2	3
Other	11	5	3	8	19	5
Total	100	100	100	100	100	100

Table 8.—*Distribution of properties whose owners had a different reason for owning in 1979, by reason for owning residency status*

(In percent of owners)

Reason for owning	Resident		Nonresident		All owners	
	1967	1979	1967	1979	1967	1979
Domestic or farm use	2	19	–	14	1	17
Part of residence	41	23	–	–	30	16
Investment	16	14	26	27	19	40
Recreation use	10	40	42	41	19	40
Timber production	16	4	–	9	11	6
Inactive	16	–	32	9	20	3

Table 9.—*Primary reason for harvesting or selling timber by study date and residency status*

(In percent of owners)

Reason for harvest	Year		
	1960	**1967**	**1979**
RESIDENTS			
Mature timber	26	33	25
Thinning	0	6	17
Salvage	0	2	18
Money	45	31	18
Clear land	2	7	8
Wages/price	21	17	0
Taxes/own use	0	2	13
Other	6	2	0
NONRESIDENTS			
Mature timber	0	33	33
Thinning	0	0	11
Salvage	0	0	0
Money	0	67	33
Clear land	0	0	22
Wages/price	0	0	0
Taxes/own use	0	0	0
Other	0	0	0

Table 10.—*Reasons owners do not harvest or sell timber by residency status and study date*

(In percent of owners)

Reason for not harvesting[1]	Residents			Nonresidents		
	1960	**1967**	**1979**	**1960**	**1967**	**1979**
1	55	54	39	54	33	30
2	0	1	15	0	2	7
3	10	11	0	3	17	7
4	2	3	0	0	2	2
5	6	3	6	8	6	2
6	1	14	15	3	29	26
7	10	5	15	5	2	19
8	17	10	9	27	8	7

[1] 1 - Immature timber, small area, or insufficient volume.
2 - No market, low price, poor quality.
3 - Property in unsettled estate, for sale, never asked.
4 - Distrust loggers, opposed to logging.
5 - Incompatible with other uses, especially hunting.
6 - Esthetics, spoil scenery, seentimental.
7 - Saving for retirement, for children, own use.
8 - Other (no time, no reason, need advice).

Table 11.—*Distribution of respondents by age class, study date, and residency*

(In percent of owners)

Year	Age class				
	Under 25	25–44	45–64	65+	All
RESIDENT					
1960	1	18	53	28	100
1967	1	25	49	25	100
1979	2	20	47	31	100
NONRESIDENT					
1960	0	24	54	21	100
1967	2	32	52	14	100
1979	3	25	55	17	100

Table 12.—*Distribution of respondents by age class, size class, study date, and residency status*

(In percent of owners)

Size class of property	Age class							
	<25		25 – 44		45 – 64		65+	
	1967	1979	1967	1979	1967	1979	1967	1979
RESIDENT								
1–9	0	4	40	41	20	41	40	14
10–34	3	6	46	27	40	53	11	19
35–74	0	0	24	18	45	42	31	39
75–149	2	0	13	12	55	46	30	42
150–599	0	0	19	15	62	52	19	33
600+	0	0	20	0	60	50	20	50
NONRESIDENT								
1–9	0	0	40	22	60	56	0	22
10–34	0	9	40	26	40	52	20	13
35–74	6	0	13	25	69	69	12	6
75–149	0	0	46	29	39	14	15	57
150–599	0	0	40	20	60	80	0	0
600+	0	0	0	0	0	0	100	0

Table 13.—*Distribution of respondents by occupation, residency status, and study year*

(In percent of owners)

	Resident			Nonresident		
	1960	**1967**	**1979**	**1960**	**1967**	**1979**
Farmer	10	11	7	3	3	0
Professional	18	18	23	35	38	35
Wage earner	29	31	34	24	28	35
Retired	24	25	26	8	12	24
Recreation	8	7	7	19	14	6
Estate	2	1	1	3	2	0
Other	8	7	2	8	2	0
Total	100	100	100	100	100	100

Carpenter, Eugene M.
Ownership change and timber supply on nonindustrial private forest land. Res. Pap. NC-265. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Forest Experiment Station; 1985. 14 p.

Presents trends in private forest land ownership in Michigan's Upper Peninsula. Describes how changes in owners, their intentions, and their actions might affect the area's timber supply with implications for the national timber supply.

KEY WORDS: Private owner characteristics, timber harvest attitudes, private owner tenure, forest subdivision, aggregation, harvest intentions and actions.

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